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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/770,506

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Yoshihiko Iijima

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08/27/2008

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EXAMINER

NGUYEN, SON T

ART UNIT

PAPER NUMBER

3643

NOTIFICATION DATE

DELIVERY MODE

08/27/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/770,506	<b>Applicant(s)</b> IIJIMA ET AL.	
	<b>Examiner</b> Son T. Nguyen	<b>Art Unit</b> 3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 53-63 is/are pending in the application.
- 4a) Of the above claim(s) 57-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 53-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. (3157964) in view of Kohno et al. (5791084).**

Ferguson et al. teach an aqueous solution comprising: various percentage amount of cinnamic acid (col. 3, line 25, depending on the intended plant type), various percentage amount of salts such as phosphate as listed in col. 7, lines 38-40, (depending on the intended plant type), and an aqueous medium such as water (see examples 1-11). In addition, since Ferguson et al. teach cinnamic acid, the cinnamic acid has the same chemical formula as claimed by Applicant because, as pointed out by Applicant, this chemical structure is well-known of cinnamic acid as provided by the Merch Index. However, Ferguson et al. are silent about the percentage amount of cinnamic acid being 0.5 to 25 wt.% of cinnamic acid, the salt being either sodium or potassium tripolyphosphate with percentage amount of 35 to 300 wt.% based on the weight of the cinnamic acid.

Kohno et al. teach using either sodium or potassium tripolyphosphate in a plant composition because of their low salt damage to the plant and their considerable effects in small amounts, thus, lower cost since only a small amount is employed (col. 2, lines

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10-19). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ either sodium or potassium tripolyphosphate as taught by Kohno et al. in the solution of Ferguson in order to reduce salt damage to the plant and reduce cost due to the salts considerable effects in small amounts.

The percentage amounts for the cinnamic acid (0.5 to 25 wt.%) and salts such as either sodium or potassium tripolyphosphate (35 to 300 wt.% based on the weight of the cinnamic acid) are not disclosed by Ferguson et al. and Kohno et al. However, it is believed that these percentages depend on the type of plants the solution is applied thereto. For example, Ferguson et al. include various amount of ingredients in the solution as explained in examples 1-11, depending on the use of the solution such as for evergreens, bare roots of dormant plants, lawns, etc. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ various percentages of cinnamic acid and sodium or potassium tripolyphosphate in the solution of Ferguson et al. as modified by Kohno et al., depending on the type of plants being employed with the solution and how potent one wishes the composition to be.

### ***Response to Arguments***

3. Applicant's arguments filed 6/3/08 have been fully considered but they are not persuasive.

**Applicant argued that Ferguson is non-analogous art and is directed to "Polymeric Compositions and their use for supplying and maintaining plant**

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**moisture" (emphasis added, see Title) and does not suggest combining unpolymerized cinnamic acid with tripolyphosphate.**

Applicant claims call for "An aqueous solution" and nothing more, so Ferguson teaches an aqueous solution, thus, is analogous art. The phrase "an aqueous solution" is extremely broad, so any related aqueous solution containing the ingredients as claimed from a prior art would qualify as analogous art. Even if assuming that Applicant specify that the aqueous solution for enhancing plant growth, Ferguson teaches in the same field of endeavor because Ferguson's composition is for supplying and maintaining moisture for plants (see col. 1, lines 11-14), which moisture is important for plant growth and development. In addition, Applicant's claim language does not claim unpolymerized cinnamic acid nor it is supported in the specification as such, thus, arguing a feature that is not even claimed would be irrelevant. Applicant appears to repeatedly argued unpolymerized cinnamic acid throughout prosecution but there is no evidence of such unpolymerization in the claims or in the specification. For example, in the non-final rejection mailed on 4/6/07, the Examiner rejected the claim set filed 2/20/07 because Applicant included the limitation "monomers". Applicant, then, deleted the "monomers" from the claim as filed on 8/6/07 and added a general cinnamic acid chemical formula, to which the Examiner does not find any difference in the cinnamic acid of Applicant versus that of Ferguson as argued in the final mailed 10/24/07. As recalled, the Examiner requested that Applicant points out where in the specification does Applicant mentioned anything about the cinnamic acid being unpolymerized or that

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it is monomers; however, Applicant has failed to show of such. It appears that there is no support in the specification for unpolymerized cinnamic acid or monomers.

MPEP 2106 states that "USPTO personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023,1027-28 (Fed. Cir. 1997). **Limitations appearing in the specification but not recited in the claim should not be read into the claim.** E- Pass Techs., Inc. v. 3Com Corp., 343 F.3d 1364, 1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003) (claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily). In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed.... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."). Note the bold and underline. In Applicant's case, the claims have not been clarified as to what really is the invention because the specification teaches plant growth regulator and all but the claims do not reflect any detail as claimed in the specification. The claims merely call for an aqueous solution comprising 0.5 to 25 wt.% of cinnamic acid, 35 to 300 wt.% of a tripolyphosphate based on the weight of the cinnamic acid,

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and an aqueous medium. Where in this claim does one even give weight that the solution is for plant growth regulator or that it pertains anything to that of plant growth? In any event, even if so stated, Ferguson in view of Kohno clearly teaches the solution as claimed with motivation as stated in the above rejection.

**Applicant argued that the Official Action does not point out any composition in Ferguson that contains unpolymerized cinnamic acid.**

The office action does not have to point out Ferguson's teaching of unpolymerized cinnamic acid because no such unpolymerized is claimed by Applicant nor is it supported in Applicant's specification. Clearly as pointed out above, col. 3, lines 25 & 29 of Ferguson teach cinnamic acid. Also noting that line 29 states that the cinnamic acid is a monomer and can be copolymerized. "Can be" does not mean that it has to. It can remain unpolymerized if wished.

**Applicant argued that assuming, for the sake of argument, that Ferguson disclosed an aqueous composition containing cinnamic acid for later polymerization into an addition polymer, there is no disclosure or suggestion to (i) select cinnamic acid (as opposed to the other alpha- or beta-ethylenically unsaturated carboxylic acids), (ii) select a concentration of cinnamic acid between 0.5 to 25 wt.%, or (iii) include 35-300 wt.% of a tripolyphosphate.**

The list as provided in col. 3, lines 19-28 are there for the user to pick as he or she wishes. Clearly, if one wishes to select cinnamic acid (because it is on the list), then one does perform the step of selecting the cinnamic acid. As for the concentration, it is clear that not all plants are the same, thus, variant in concentration would have been

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obvious for one to select depending on the plant type and how potent one wishes the composition to be. Even Applicant acknowledges this because in paragraphs [0022] [0031][0034][0035] of Applicant's PGPUB 2004/0200144A1, Applicant stated that these concentrations are not limited, but depending on the type of plants one wishes to apply thereon. Hence, this cannot be interpreted as reasonable expectation of success because none of the concentration produces unexpected result because it would depend on the type of plant being applied with the solution.

A person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and Common sense. In that instance the fact that a combination was obvious to try (choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success) might show that it was obvious under 103. *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739, 1740, 82 USPQ2d 1385, 1395, 1396 (2007). Under some circumstances, however, changes such as these may impart patentability to a process if the particular ranges claimed produce a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. *In re Dreyfus*, 22 CCPA (Patents) 830, 73 F.2d 931, 24 USPQ 52; *In re Waite et al.*, 35 CCPA (Patents) 1117, 168 F.2d 104, 77 USPQ 586. Such ranges are termed "critical" ranges, and the applicant has the burden of proving such criticality. *In re Swenson et al.*, 30 CCPA (Patents) 809, 132 F.2d 1020, 56 USPQ 372; *In re Scherl*, 33 CCPA (Patents) 1193, 156 F.2d 72, 70 USPQ 204. However, even though applicant's modification results in great improvement and utility over the prior art,

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it may still not be patentable if the modification was within the capabilities of one skilled in the art. In re Sola, 22 CCPA (Patents) 1313, 77 F.2d 627, 25 USPQ 433; In re Normann et al., 32 CCPA (Patents) 1248, 150 F.2d 627, 66 USPQ 308; In re Irmischer, 32 CCPA (Patents) 1259, 150 F.2d 705, 66 USPQ 314. More particularly, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Swain et al., 33 CCPA (Patents) 1250, 156 F.2d 239, 70 USPQ 412; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C. 217, 99 F.2d 986, 38 USPQ 213; Allen et al. v. Coe, 77 App. D.C. 324, 135 F.2d 11, 57 USPQ 136. As mentioned above, the concentration would depend on different types of plant, thus, to come up with various ranges would have been obvious to try by routine experimentation to find a reasonable expectation of success for the desired plant chosen.

**Applicant argued that Kohno does not disclose cinnamic acid at all. Thus, neither Kohno nor Ferguson can suggest the combining cinnamic acid and tripolyphosphate as required by the invention, nor provide a reasonable expectation of success for the utility of the invention as a plant growth inhibitor.**

Kohno was not relied on for cinnamic acid. As clearly explained in the detailed action, Kohno was relied on for a teaching of tripolyphosphate, which is a known salt. Ferguson teaches cinnamic acid combined with a salt as listed in col. 7, lines 38-40. Thus, one of ordinary skill in the art would employ the tripolyphosphate as taught by Kohno as the preferred salt in the solution of Ferguson in order to reduce salt damage to the plant and reduce cost due to the salts considerable effects in small amounts (as

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stated in col. 2, lines 10-19 of Kohno). Although not specifically stated in Kohno, the tripolyphosphate is known to be a plant growth inhibitor because it is, after all, a salt and if use in large amount, will technically inhibit plant growth. This is know fact and does not have to expressly be taught in Kohno nor is it really a reasonable expectation of success on Applicant's part. Even though Kohno uses the salt for a different purpose (see col. 2, lines 10-19), the property of the salt, nevertheless, can inhibit growth of plant, and of course, depending on the plant type.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Son T. Nguyen/  
Primary Examiner, Art Unit 3643